Pod Report

By

Mogiveny Rajkoomar

Staff Number: 50081397

TITLE: Exploring the potential of podcasting at Durban University of Technology

**Title: Exploring the potential of podcasting at Durban University of Technology**

**Introduction**

In present society, the global marketplace and the information age tend to drive the type and design of the teaching and learning environment. Today there are many challenges facing higher education in South Africa as well as globally. These challenges include: the diversity of the student body, cost efficiency, achieving measurable outcomes, the potential of new and advanced technologies to provide personalised learning against the traditional ideas of the purpose of education (Nel and Wilkinson 2006: 553). There is a move towards a global higher education community that is in search of more effective teaching and learning within a diverse and technological environment (Nel and Wilkinson 2006: 553). However, it must be noted that presently pedagogical traditions in higher educational institutions exist where teaching and learning has been and is to some extent facilitated predominately by dialogue and discussion in higher education classrooms. Educators and students are therefore accustomed to direct oral communication. The key question therefore is, are students and academics in higher education ready and eager to embrace innovative methods of teaching and learning, like podcasting, in education.

**Context**

Classroom teaching still remains the dominant mode in the higher education setting. Most higher education academic staff still relies heavily on lectures and seminars as the main and time-honoured means of disseminating knowledge and maintaining some sense of staff/student contact (Sweeney et al. 2004: 312). However lecturers do support student learning that include a variety that include lectures, seminars, workshops, student presentations, student performances, group work, distance learning, e-learning, individual supervision and work integrated learning (WIL). Many higher education institutions offer education programmes that are primarily classroom-based and contain a large amount of information that must be transferred to students.

In terms of online learning, technology enables the students to not be only restricted to the transmission mode of pedagogy which is often the dominant practice in higher education classrooms. Students are able to find more information for themselves and join communities and discussions where facts, information and knowledge are challenged and tested. Students are able to engage in a dynamic, interactive and reflective online environment, with rapid feedback and multiple interfaces (Jones 2007: 3). Other advantages of online learning cited in the literature include less time in the classroom, less money on travel, more course availability, and decreased student inhibitions as the result of the removal of psychological and social barriers to interaction and increased flexibility. The disadvantages include the lack of student-to-instructor and student-to-student interaction. Other disadvantages include privacy issues, technological difficulties, and a focus on technology rather than the content (Jackson and Helms 2008: 7).

Pang (2008: 4) sees education as a process, a methodology of communication, of sharing knowledge, of transferring information, of mentorship, of facilitating, of leading, of listening, of learning, of growing and developing, of challenging and it is also fluid and difficult to “label and capture.”This statement awakens one to the magnitude and the importance of education and the benefits that it can bring to society when implemented with careful thought and planning.

It has become a global trend in higher education to be searching for more effective teaching and learning in an increasingly diverse and technological environment (Nel and Wilkinson 2006: 553). Garrison and Vaughan (2008: 3) propagate that educators in higher education reexamine current practices and to actively engage students in achieving higher-order learning outcomes needed in higher education.

The potential of disseminating of educational instructional content via podcasting published in online classrooms, via blogs on the internet and via mobile devices such as mobile phones, iPods, mp3 players and PDA devices, needs to be explored for more effective teaching and learning at higher educational institutions.

**Challenges**

The Net generation can be defined as the population of young people that have grown up or are growing up in constant contact with digital media (Beyers 2009: 220). Technology pervades almost every sphere of life from home to work to play and also has profound implications for teaching and learning. The Net generation students learn in different ways than the traditional student and the challenge of educators to meet the needs of the Net generation students is daunting. Educators themselves have been trained to operate on a two dimensional level where they rely on a syllabus bound prescribed text book where many educators grew up and were trained without computers and ICTs (Beyers 2009: 220). Therefore educators need to be brought up to speed to cater for the Net generation. Presently some higher education institutions are running short courses training educators in the use of current technology like using online learning management systems and iPods to use technology to improve their teaching.

Some of the issues and challenges with podcasting include different levels of students with regard to computer literacy and use of technology; the role of learner choice and self-regulation; technical support and training; finding the balance between innovation and production and implementation; dealing with the digital divide.

Time and working in the confines of the classroom with traditional classes and restrictive timetables is another challenge that students and educators are faced with. The learning process needs to be extended beyond the confines of the core curriculum and the physical walls of the classroom (Beyers 2009: 223). Podcasting can be used as one of the ways of achieving this.

**Problem Statement**

Are students and academics in higher education ready and eager to embrace innovative methods of teaching and learning, like podcasting, in education?

Educators in higher education are disseminating instructional content via podcasting as many believe in the potential benefits of using podcasting. The benefits include: facilitation of self-paced learning, remediation for slow learners, enrichment for advanced and /or highly motivated students, assistance for students with reading and or other disabilities, auditory support for multi-lingual education (Walls et al. 2010: 372). Furthermore the ability to download podcasts immediately and permanently gives students unhindered access to educational content they need. They also have the flexibility to listen to and/or watch education material anywhere (e.g., on the taxi/bus/car, at home etc) and at any time where they can choose the best time to listen, and or can review the same educational material several times).

On the other had there are also concerns about the risks of the damaging effects that might accompany the adoption of podcasting, such as lower class attendance. The literature offers numerous disadvantages of using podcasting in education. The cognitive theory of multimedia learning hints that the potential negative outcome of offering podcasting as an additional resource for students that are already using multiple resources for learning; if the student does not realize the benefits of the self-pacing multimedia characteristics of podcasting it contributes to cognitive overload. Also most students use their digital media like mp3 players and iPods, for entertainment purposes. It may take time for students to view these as tools for studying and learning (Walls et al. 2010: 372).

**Learning Theories**

Learning theories are systemic and integrated understandings of how humans interact and function in their environment and are used to guide teaching activities (Nulden 2001: 364).

Behaviourism, cognitivism and contructivism are some of the main theories that are consulted. The behaviourist strategies are used to teach the facts; cognitive strategies the process and principles and the constructivist strategies the higher level thinking that promotes personal and cont contextual meaning (Bezuidenhout, Van der Westhuizen and De Beer 2005: 3).

The theory of behaviorism focuses on the study of behaviours that are shown openly and that can be observed and measured (Alonso et al. 2008: 390). In behaviourism it is the behaviour of the learner that determines whether learning has taken place. Learning can be seen as the “acquisition of mental schemata, knowledge, abilities, skills, etc., that can be used to solve problems potentially more successfully (Alonso et al. 2008: 390).

Cognitivism is where learning is viewed as an internal mental process in which information storage processing and retrieval is important. Cognitivists focus on the internal processes of learning such as memory, thinking, reflection, obstruction, motivation and meta-caption. Learning is also seen as a developmental process based on prior knowledge, experiences and expectations. Learning is viewed as the acquisition and reorganization of the cognitive structures to enable the processing and storage of information (Alonso et al. 2008: 390).

Constructivism can be seen as a philosophy of learning that articulates mechanisms by which knowledge is internalized by learners. Constructivism tends to emphasis knowledge construction, rather than knowledge transmission (Beyers 2009: 220). Constructivism emphasizes the building or construction that takes place when people engage in learning activities by active engagement and understanding the environment according to their own experiences, perceptions and mental models. In constructivism learning is seen as a personal interpretation of the world where the learners construct or interpret their own reality based on their perceptions and experiences (Alonso et al. 2008: 390). The constructivist approach emphasizes that the individual learner needs to build knowledge and skills and that information exists within these built constructs rather than within the environment (Pang 2008: 4).The constructivist approach is learner centred where learners are actively involved in creating meaning to context. New knowledge is constructed and meaning is found through constructivism of the students’ related world and interaction with peers and study materials.

It is important to note that from the above that the learning environment, comprises of elements of behavioral, cognitive, social and constructivist learning theories. The learning theories are aligned to all forms of learning and learning styles, for example, active learning is an iterative process and advocates constructivist ideologies and may not be aligned with behaviourist stimulus-response beliefs.

**Methodology**

Action research is a form of collective, self-reflective inquiry that participants in social situations undertake to improve: firstly the rationality and justice of their own social or educational practices; and secondly the participants’ understanding of these practices and the situations in which they carry out these practices. Groups of participants can be teachers, students, parents, workplace colleagues, social activists or any other community members – that are any group with a shared concern and the motivation and will to address their shared concern. The approach is action research only when it is collaborative and achieved through the critically examined action of individual group members. Action research by its very nature seeks to explain the pedagogical assumptions of the researchers (participants) and their research project (Altrichter et al.:125).

For the first part of my methodology to enable me to answer my research question I used action research and I then conducted focus group discussions the Library and Information Studies educators and Library and present and future students that are enrolled and will be enrolling for the Library Promotion course in the Library and Information studies programme.

I am passionate about teaching and learning, especially the use of innovative teaching and learning for optimal educational benefits. The podcasting pilot class that I attended at CELT, required me create a podcast. I was required to create a podcast script which required three basic aspects; opening, content and closing. I chose to create a podcast for the subject Library Promotion, which is a second level course in the Library and Information studies programme. The reasons that I chose to create a podcast for this subject were firstly I had avenues to publish or distribute the podcast as I had already had a Blackboard classroom and a blog set up for this subject. Secondly the subject has a theory and practical component and students could listen to the theory aspects repeatedly and will be better able to apply the theory to the practice.

**Pilot activity**

I created the podcast using Garage band software on the Mac computer at CELT. I opted to produce an audio podcast as I was concerned about the cost to the student of downloading the material onto their mobile phones. I downloaded the podcast into the iPod, generously provided by DUT. I published the podcast on the Library Promotion Blackboard classroom and on the LibraryPromotion blog. Four students were asked to attempt to download the podcast on to their mobile phones, mp3 players, iPods or any other mobile device that they had. The students were able to listen to podcast on the computers in the LAN facility at the LIS department; however they had some difficulties loading the podcast onto their phones. Some students indicated that they did have mp3 players and iPods but did not have it on them to download. I then went on to conduct a focus group discussion with four LIS educators and four LIS students.

The aim of the focus group discussion was to establish the extent of their learning experiences with regard to podcasting, as well as to ascertain whether the LIS educators and students were eager to embrace podcasting at DUT. According to Gorman and Clayton (1997: 143) “a focus group session is a small group discussion (6-12 people), guided by the facilitator and used by a facilitator to gain an understanding of participants’ attitudes and perceptions relevant to a particular topic.” Bless, Higson-Smith and Kagee (2006: 122) further highlight that the “advantages of using focus groups are that participants are able to discuss the issues in question with each other. One person’s ideas may set off a whole string of related thoughts and ideas in another person.” The focus group sessions will enable the researcher to ascertain students’ perceptions and experiences with regards to podcasting as well as ascertain the educational benefits and challenges relating to the use of podcasting at DUT.

I started the focus group discussion by explaining to the participants the purpose of the focus group discussion. The then went on to clarify key terminology like the definition of a podcast, podcasting, the types of podcasts available and accessing the podcasts and RSS feeds. I recorded the discussion using an IC recorder. I also realized that the digital sound recorder could be used to create podcasts as they could be downloaded as mp3 files. We had a vibrant and fruitful discussion. Issues of attendance, language and cost of downloading came up in the discussion naturally, although I intended approaching these issues. I found the feedback very useful and enlightening.

**Feedback**

One of the educators as well as one of the students indicated that they found the music in the podcast too soothing that it made them sleepy and one indicated that he found the music a bit distracting. They found that the voice on the podcast was very clear and pleasing to the ear, and that the content was informative. All the participants were very keen to introduce podcasting at DUT.

**Student Attendance**

The concern of students not attending classes was addressed and a healthy discussion ensued. It was established that the podcasts should not be as a tool to replace lectures but to supplement the material as well as for reinforcement of the course content. It was established that the subject for which the podcast was created was a continuous assessment subject and attendance was compulsory where attendance registers will be taken.

Lonn and Teasley (2009: 88) have found that students use podcast materials mainly for reviewing concepts and issues raised in lecturers that they have previously attended.

**Language**

With regards to the language issue the group was divided. Some participants indicated that they understood the content better when they were exposed to the content in the language of their choice and that they were better able to translate the material into English rather than the material disseminated to them in English. Other felt that they needed to be proficient in English in the working environment and they therefore needed to be taught in English to improve their proficiency in English.

Students also wanted to be given choices of downloads as some wanted have the podcasts published on the Internet, e-classroom, the blog and as well as in the LAN in the LIS department.

On the issue of cost, participants indicated that vodcasts might cost too much and that they were not in a position to spend too much money, this also led to the issue that this might also alleviate the issue of non-attendance as the students could only use the podcasts in emergencies where they will not be disadvantaged if they have missed a lecture. However one participant indicated that they would not mind incurring the cost if it was beneficial and improved their grades or marks.

**The vision**

I would like to:

* conduct a study at DUT to establish had portable devices and the nature of the devices e.g. mp3 players, iPods etc.
* liaise with the Languages and Translations department at DUT to establish the viability of translating the podcasts into one or two languages of the students choice.
* Investigate the viability of obtaining mp3 players via the student levies for downloading educational content of instructional course materials.
* Develop enhanced podcasts.

**Podcasting in Higher Education at DUT**

The benefits of disseminating instructional content via podcasts, outweighs the risks. DUT should therefore invest in providing the infrastructure (which is minimal) and the training and support to staff and students for creating producing, publishing and accessing educationally sound podcasts that will enhance the teaching and learning experience for both students and academics at DUT**.**

**Feasibility**

Rangusa, Chan and Crampton (2009:680) advocate that podcasts can be used as a market driven product for Generation Y. Students expect education to be pragmatic and directly useful to their individualized needs. Podcasting is an inexpensive technology to produce and use one that is portable and stimulates listeners.

**Relevance and Future adjustments**

Today’s higher education students are using more technology than ever. Students have access to the Internet at computer labs at DUT and at the library at DUT. There are also an increasing number of students with laptops as they have become more affordable. DUT should investigate in making wireless Internet access hotspots. Podcasts can also be made available via Facebook and uTube.

**Assumptions**

The study was conducted on a small group of the DUT community. A wider study with a larger sample should be conducted to confirm the perceptions of the group with regard to the use of podcasting for educational purposes at DUT

**Lessons learnt**

I enjoyed the focus group discussions and managed to extract a lot of valuable data from the exercise. Although I am passionate about introducing innovative teaching and learning at DUT, I have realized that producing educationally sound podcasts is time consuming and also requires a fair amount of technical skill and some expertise. The staff at CELT especially Gita have been very supportive and encouraging. DUT should seriously look at given academics some time to become familiar with new technologies for teaching and learning at DUT. I have the passion and the enthusiasm but not the time.

**Conclusion**

The traditional ways of teaching and learning is undergoing a sea of change. We need to create a learning environment that embraces new technologies. The use of technologies like podcasting enables academic staff, to address and maybe even meet the challenges of having to teach students from diverse academic, social and language backgrounds.

**Bibliography**

Alonso, F. et al. 2008. Learning objects, learning objectives and learning design. *Innovations in education and teaching international,* 45(4): 389-400.

Beyers, R.N. 2009. A five dimensional model for educating the Net generation. *Educational Technology and Society,* 12(4): 218-227.

Bezuidenhout, J.; Van der Westhuizen and De Beer, K.J. 2005. Andragogy: a theoretical overview on learning theories that impact on benchmarking blended learning at the Central University of Technology, Free State. *Journal of new generation sciences,* 3(2): 1-27.

Bless, C., Higson-Smith, C. and Kagee, A. 2006. *Fundamentals of social research methods: an African perspective.* Cape Town: Juta.

Garrison, D.R and Vaughan, N.D. 2008. *Blended learning in higher education: framework, principles and guidelines.* San Francisco: Jossey-Bass.

Gorman, G.E. and Clayton, P. 1997. *Qualitative research for the information professional: a practical handbook.* London: Library Association Publishing

Jackson, M.J. and Helms, M.M. 2008. Student perceptions of hybrid courses: measuring and interpreting quality. *Journal of education for business,* September/October: 7-12.

Jones, R. 2007. Learning technologies and schools of the future. *British Council for School Environments,* 3-13.

Lonn, S. and Teasley, S.D.2009. Podcasting in higher education. *Internet and higher education*, 12: 88-92.

Nel, L. and Wilkinson, A. 2006. Enhancing collaborative learning in a blended learning environment: applying a process planning model. *Systemic practice in action research,* 19: 553-576.

Nulden, U. 2001. E-ducation: research and practice. *Journal of computer assisted learning,* 17: 363-375.

Ragusa, A.T; Chan, A. and Crampton, A. 2009.iPods aren’t just for tunes: exploring podcasting as a socio-cultural technology facilitating student experiences of higher education in rural areas.*Information, Communication and Society,* 12(5): 678-690.

Sweeney, J.; O’Donoghue and Whitehead, C. 2004. Traditional face-to-face and web-based tutorials: a study of university students’ perspectives on the roles of tutorial participants. *Teaching in higher education,* 9(3): 311- 323.

Walls, S.M.; Kucsera, J.V.; Walker, J.D.; Acee, T.W.;McVaugh, N.K. and Robinson, D.H.2010. Podcasting in education: are students as ready and eager as we think they are? *Computers and Education,* 54: 371-378.